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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/717,892	11/20/2003	Robert A. Koch	BS02301CON2 (KS-02301)	9410
7590	11/16/2005		EXAMINER RAMOS FELICIANO, ELISEO	
Scott P. Zimmerman P.O. Box 3822 Cary, NC 27519			ART UNIT 2687	PAPER NUMBER

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/717,892	Applicant(s) KOCH ET AL.	
	Examiner Eliseo Ramos-Feliciano	Art Unit 2687	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Abstract and Specification

1. Previous objection to the abstract and specification is withdrawn in view of Applicant's amendment filed on August 30, 2005.

Claim Objections

2. Previous objection to *claims 1-2, 7, and 13-15* is withdrawn in view of Applicant's amendment filed on August 30, 2005.

Claim Rejections - 35 USC § 112

3. Previous rejection to *claims 6 and 14* under 35 U.S.C. 112, second paragraph, is withdrawn in view of Applicant's amendment filed on August 30, 2005.

Double Patenting: Issues I and II

4. Previous rejection to *claims 1-19* under double patenting grounds is withdrawn in view of Applicant's amendment filed on August 30, 2005.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. **Claims 1-8, 10-14, 16, and 18-19** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller (US Patent Number 6,775,546) in view of Jones et al. (US Patent Number 6,195,422).

Regarding **claim 1**, Fuller discloses a method for monitoring telecommunications usage (Figures 2 and 3), comprising:

receiving a call (step 300 – Figure 3; column 8, line 55) directed to a virtual telephone number (“common” or “virtual fixed line number” column 3, lines 31-38) in a service-providing network (the network depicted in Figure 2 at least including elements 41, 42, 43, 44), the service-providing network providing intelligent services to said call (for example: voice mail (VMS), call forwarding, etc – column 6, lines 45-50; Figure 2);

routing said call to a separate native transport network (the network depicted in Figure 2 at least including elements 21, 30, 47) from which said call originates (step 303 – Figure 3; column 10, lines 12-14). (See also column 5, lines 9-27).

The two networks are considered "separate" as claimed because the service-providing network (the network depicted in Figure 2 at least including elements 41, 42, 43, 44) is wireline network while the native transport network (the network depicted in Figure 2 at least including elements 21, 30, 47) is wireless network as depicted in Figure 2.

Even though Fuller discloses billing or charging for the call in a fixed-to-mobile basis (column 10, lines 15-17), he fails to specifically disclose monitoring the duration of the call traversing the service-providing network as claimed by applicant.

Jones et al. discloses a method including monitoring a duration of a call for billing purposes. After accepting a call (step S14 – Figure 4) the service-providing system/ network (CCS 18), routes the call (step S16 – Figure 4), monitors the duration of the call and generates a bill (step S17 – Figure 4); see column 14, lines 4-19 (especially line 8). Jones et al.’s method has the advantage of providing for better accuracy of billing since the call is monitored and timed.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to monitor the duration of the call in Fuller's invention as suggested by himself by teaching billing or charging for the call because such monitoring provides for accuracy of billing.

Regarding **claim 2**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, as explained above the combination discloses monitoring a status of said call (monitoring for billing: step S17 – Figure 4; see column 14, lines 4-19 (especially line 8) – Jones et al.).

Regarding **claim 3**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, as explained above Fuller discloses routing said call to an original destination via the separate native transport network (step 303 – Figure 3; column 10, lines 12-14; column 5, lines 9-27).

Regarding **claim 4**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, as explained above Fuller discloses providing the intelligent services to said call (for example: voice mail (VMS), call forwarding, etc. – column 6, lines 45-50; Figure 2).

Regarding **claim 5**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, Fuller discloses that the service-providing network is a network selected from the group consisting of a wireline network, a wireless network, and a packet-switching network. For example, wireline/fixed-line network (depicted in Figure 2 at least including elements 41, 42, 43, 44).

Regarding **claim 6**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, Fuller discloses associating the virtual telephone number to a wireless telephone number existing in the native transport network (the telephony device includes an identifier: MSISDN – column 3, lines 39-40. “There is an association in the switching network between this number and the MSISDN, such that incoming calls made to the virtual fixed-line number are translated to the MSISDN number” – column 2, lines 3-6. “The SCP 43 ... converts the number to an MSISDN” – column 5, line 57; see also column 8, lines 55-57. SCP 43 includes a database – column 8, line 48. HLR 44 includes a database – column 5, line 30).

Regarding **claim 7**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, Fuller discloses associating the virtual telephone number to "another" telephone number existing in the native transport network (the telephony device includes an identifier: MSISDN – column 3, lines 39-40. “There is an association in the switching network between this number and the MSISDN, such that incoming calls made to the virtual fixed-line number are translated to the MSISDN number” – column 2, lines 3-6. “The SCP 43 ... converts the number to an MSISDN” – column 5, line 57; see also column 8, lines 55-57. SCP 43 includes a database – column 8, line 48. HLR 44 includes a database – column 5, line 30).

Regarding **claim 8**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, Fuller discloses that the native transport network is a network selected from the group consisting of a wireline network, a wireless network, and a packet-switching network. For example, wireless network (depicted in Figure 2 at least including elements 21, 30, 47).

Regarding **claim 10**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). In addition, Fuller further discloses billing the subscriber (user; account) based on the duration of the call ("billing system 49 [...] generates billing information for charges incurred by the user of the handset 21" – column 5, lines 44-46; "billing system 49 is controlled to charge the common number account for the fixed-to-mobile leg of the call" – column 10, lines 15-17). Jones et al. also discloses billing the subscriber (customer) based on a duration of the call (step S19 – Figure 4).

Regarding **claim 11**, Fuller discloses a system for providing an intelligent service to a wireless device (Figures 2 and 3), comprising:

a communications switch (42, 43) in a service-providing network (the network depicted in Figure 2 at least including elements 41, 42, 43, 44) receiving a call (step 300 – Figure 3; column 8, line 55) directed to a virtual telephone number ("common" or "virtual fixed line number" column 3, lines 31-38), the call received from a separate native-transport network (the network depicted in Figure 2 at least including elements 21, 30, 47) "having limited capability" (capability is fairly characterized as "limited") of providing the intelligent service to the call (step 303 – Figure 3; column 10, lines 12-14; column 5, lines 9-27); and

an application server (48, 44) communicating with the communications switch (42, 43), the application server providing the intelligent service to the call (for example: voice mail (VMS), call forwarding, etc – column 6, lines 45-50; Figure 2),

wherein after the intelligent service is provided to the call the switch routes the call from the service-providing network to the call's intended destination (step 303 – Figure 3; column 10, lines 12-14; column 5, lines 9-27).

The two networks are considered "separate" as claimed because the service-providing network (the network depicted in Figure 2 at least including elements 41, 42, 43, 44) is wireline network while the native transport network (the network depicted in Figure 2 at least including elements 21, 30, 47) is wireless network as depicted in Figure 2.

Even though Fuller discloses billing or charging for the call in a fixed-to-mobile basis (column 10, lines 15-17), he fails to specifically disclose monitoring the duration of the call traversing the service-providing network as claimed by applicant.

Jones et al. discloses a method including monitoring a duration of a call for billing purposes. After accepting a call (step S14 – Figure 4) the service-providing system/ network (CCS 18), routes the call (step S16 – Figure 4), monitors the duration of the call and generates a bill (step S17 – Figure 4); see column 14, lines 4-19 (especially line 8). Jones et al.'s method has the advantage of providing for better accuracy of billing since the call is monitored and timed.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to monitor the duration of the call in Fuller's invention as suggested by himself by teaching billing or charging for the call because such monitoring provides for accuracy of billing.

Regarding **claim 12**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 11*). In addition, as explained above the combination discloses the intelligent service also monitors a status of the call (monitoring for billing: step S17 – Figure 4; see column 14, lines 4-19 (especially line 8) – Jones et al.).

Regarding **claim 13**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 11*). In addition, Fuller discloses a database (SCP 43 / HLR 44 either singularly or in

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combination) associating the virtual telephone number to a wireless telephone number existing in the native transport network (the telephony device includes an identifier: MSISDN – column 3, lines 39-40. “There is an association in the switching network between this number and the MSISDN, such that incoming calls made to the virtual fixed-line number are translated to the MSISDN number” – column 2, lines 3-6. “The SCP 43 ... converts the number to an MSISDN” – column 5, line 57; see also column 8, lines 55-57. SCP 43 includes a database – column 8, line 48. HLR 44 includes a database – column 5, line 30. Therefore, SCP 43 / HLR 44 either singularly or in combination read as the claimed database).

Regarding **claim 14**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 11*). In addition, Fuller discloses a database (SCP 43 / HLR 44 either singularly or in combination) associating the virtual telephone number to "another" telephone number existing in the native transport network (the telephony device includes an identifier: MSISDN – column 3, lines 39-40. “There is an association in the switching network between this number and the MSISDN, such that incoming calls made to the virtual fixed-line number are translated to the MSISDN number” – column 2, lines 3-6. “The SCP 43 ... converts the number to an MSISDN” – column 5, line 57; see also column 8, lines 55-57. SCP 43 includes a database – column 8, line 48. HLR 44 includes a database – column 5, line 30. Therefore, SCP 43 / HLR 44 either singularly or in combination read as the claimed database).

Regarding **claim 16**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 11*). In addition, Fuller’s service-providing network is fairly characterized as an advanced intelligent network as claimed. Furthermore, Jones et al.’s service-providing network is an advanced intelligent network as claimed (column 5, line 10).

Regarding **claims 18-19**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 11*). In addition, Fuller discloses wherein the service-providing network modifies caller information associated with the call (messages accompanying the call). (The telephony device includes an identifier: MSISDN – column 3, lines 39-40. “There is an association in the switching network between this number and the MSISDN, such that incoming calls made to the virtual fixed-line number are translated to the MSISDN number” – column 2, lines 3-6. “The SCP 43 ... converts the number to an MSISDN” – column 5, line 57; see also column 8, lines 55-57). The call is not routed back to the service-providing network in an endless loop because the call is properly routed/forwarded (column 6, lines 45-50; Figure 2).

Claim Rejections - 35 USC § 103

7. **Claims 9, 15 and 17** are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuller (US Patent Number 6,775,546) in view of Jones et al. (US Patent Number 6195,422) as applied to *claims 1 and 11* above, and further in view of Dent (US Patent Application Publication Number 2003/0050100).

Regarding **claim 9**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 1*). However, Fuller and Jones et al. fail to specifically disclose billing a telecommunications provider of said native transport network for said monitoring.

Dent discloses a method including monitoring a duration of a call (steps 206-212 – Figure 4) for billing purposes (step 214 – Figure 4); see paragraph 0027. “Apart from the economic benefits, communication quality benefits from the ability to access a larger number of antenna sites 12 allowing more frequent use of transmit and receive diversity to improve

communications” – paragraph 0028. Another advantage is providing for better accuracy of billing since the call is monitored and timed.

In addition, Dent discloses billing a telecommunications provider of a native transport network for said monitoring; see paragraph 0016, especially last sentence, paragraph 0027, especially last three sentences, and paragraph 0026, especially last two sentences. Dent’s method has several advantages such as cross-bill (paragraph 0026, last two sentences), and enhanced roaming services (paragraph 0006).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify Fuller and Jones et al. for billing a telecommunications provider of a native transport network for said monitoring for the advantage of cross-billing and allowing enhanced roaming services.

Regarding **claim 15**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 11*). In addition, Fuller discloses a database (SCP 43 / HLR 44 either singularly or in combination) associating the virtual telephone number to a voice-based telephone number existing in the native transport network (the telephony device includes an identifier: MSISDN – column 3, lines 39-40. “There is an association in the switching network between this number and the MSISDN, such that incoming calls made to the virtual fixed-line number are translated to the MSISDN number” – column 2, lines 3-6. “The SCP 43 ... converts the number to an MSISDN” – column 5, line 57; see also column 8, lines 55-57. SCP 43 includes a database – column 8, line 48. HLR 44 includes a database – column 5, line 30. Therefore, SCP 43 / HLR 44 either singularly or in combination read as the claimed database).

However, Fuller and Jones et al. fail to specifically disclose that the voice-based telephone number is packet voice-based telephone number as claimed.

In analogous art, Dent discloses that the service-providing network includes a packet-switching network (IP-based communications or Internet network –paragraph 0025, especially last line).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a packet-switching network capabilities with corresponding packet voice-based telephone number in Fuller and Jones et al.'s invention because this would enable Internet access as suggested by Dent which is very desirable.

Regarding **claim 17**, Fuller and Jones et al. disclose everything claimed as applied above (see *claim 11*). However, Fuller and Jones et al. fail to specifically disclose a packet-switching network as claimed.

In analogous art, Dent discloses that the service-providing network includes a packet-switching network (IP-based communications or Internet network –paragraph 0025, especially last line).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to include a packet-switching network capabilities in Fuller and Jones et al.'s invention because this would enable Internet access as suggested by Dent which is very desirable.

Response to Arguments

8. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Claims have been amended to include numerous features not recited in the rejected claims. These newly presented limitations are now treated on the merits as explained above.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

10. Any inquiry concerning this communication from the examiner should be directed to Eliseo Ramos-Feliciano whose telephone number is 571-272-7925. The examiner can normally be reached from 8:00 a.m. to 5:30 p.m. on 5-4/9 1st Friday Off.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester G. Kincaid, can be reached on (571) 272-7922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ERF/erf
November 9, 2005

ELISEO RAMOS-FELICIANO
PATENT EXAMINER




SONNY TRINH
PRIMARY EXAMINER